



10

- An end vascular support device comprising at least one compressible stent means 1. encapsulated by a balloon of a balloon catheter for implantation in a vessel within the human body.
- 2. The endovascular support device of Claim 1 wherein the balloon is adhered to the 5 compressible stent means when encapsulated.
 - The endovascular support device of Claim 1 further comprising at least one retainer 3. means for facilitating delivery of the encapsulated stent means for implantation.

The endovascular support device of Claim 1 wherein the stent means comprises at least one expandable unitary wire-like member bent to form a plurality of substantially straight, non-overlapping sections connected by axial bends.

- The endovascular support device of Claim 1 wherein the balloon defines at least three wing means surrounding the balloon catheter for substantially symmetrical expansion of the stent means.
- The endovascular support device of Claim 4 wherein the balloon defines a number of 6. wing means selected relative to a number of axial bends of the stent means. 15
 - The endovascular stent means of Claim 4 wherein the stent means comprises at least two connected wire-like members.
 - A method of manufacture of an endovascular support device comprising: 8. mounting at least one stent means on a balloon of a balloon catheter;
- 20 placing the mounted steat means within a holding means to prevent expansion of the mounted stent means;

heating the mounted steht means within the holding means to cause the balloon to expand around the stent means; and

cooling the balloon catheter within the holding means so that the balloon adheres to 25 the stent means.

- 9. . The method of Claim 8 including the steps of pressurizing the balloon catheter during the heating step and during the cooling step.
- 10. The method of Claim 8 further comprising the step of forming at least one retainer at an end of the mounted stent means.
- The method of Claim 8 including the step of removing the holding means after 30 11. cooling.
 - A method for treating narrowing of vessels within humans comprising the steps of: 12.



providing at least one encapsulated endovascular support device on a balloon catheter;

advancing the balloon catheter and the at least one encapsulated endovascular support device to an area to be treated within the vessels;

inflating the balloon catheter to expand the at least one encapsulated endovascular support device within the area to be treated; and

deflating/the balloon catheter so that the balloon pulls away from the endovascular support device.

- 13. A balloon for delivering a stent means to a vessel in a human comprising a selectable number of folded and wrapped wing means for symmetrical expansion of a stent means.
 - 14. The balloon of Claim 13 wherein the stent means is a unitary wire-like member defining substantially straight sections connected by axial turns at each end of the member, the selectable number of folded and wrapped wing means substantially conforming to a number of axial turns at an end of the member.
- 15 15. The balloon of Claim 13 defining at least one retainer portion for facilitating delivery of the stent means.

AND AS

5

10

AND PROPERTY.